

**DRAFT**

**HAZARDOUS MATERIALS  
ABATEMENT**

**FORMER MIDDLETOWN POLICE  
STATION  
62-66 CHURCH STREET  
MIDDLETOWN, CONNECTICUT**

**AUGUST 2000**

*Prepared for:*

**City of Middletown**  
Middletown, Connecticut

*Prepared by:*

**MARIN  
ENVIRONMENTAL, INC.**  
Haddam, Connecticut

# DRAFT

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# DRAFT

FORM OF BID  
BASE BID  
(To Be Submitted in Triplicate)

To City of Middletown  
245 DeKoven Drive  
Room 202  
Middletown, CT 06457

A. The undersigned, having attended the Pre-Bid Conference and having verified the quantities and conditions affecting the cost of the work, and having reviewed in detail the specifications (including Invitation to Bid, Instructions to Bidders, this bid form, the form of Contract, the form of Performance Bond and Payment Bond, the General Conditions, the General Scope of Work, the Technical Specifications and Drawings and Addenda, if applicable) as prepared by Marin Environmental, Inc. of Haddam, Connecticut, hereby proposes to furnish all labor, materials, equipment, and services required for the Hazardous Materials Abatement at the former Middletown Police Station at 62-66 Church Street in Middletown, Connecticut, in accordance therewith, for the Contract Price specified below, subject to additions and deductions according to the terms of the Specifications.

B. This Bid includes Addenda numbered \_\_\_\_\_

C. The proposed Contract Price is \_\_\_\_\_ Dollars (\$ \_\_\_\_\_).

D. Unit Prices per the following schedule. Unit prices include labor, disposal, containment construction and removal costs, and all necessary fees.

Item No. 1 – REMOVAL AND DISPOSAL OF VINYL ASBESTOS FLOOR TILE AND MASTIC

\$ \_\_\_\_\_ per square foot.

Item No. 2 – REMOVAL AND DISPOSAL OF MUDDIED INSULATION ON PIPE FITTINGS

\$ \_\_\_\_\_ per fitting.

Item No. 3 – REMOVAL AND DISPOSAL OF THERMAL SYSTEM PIPE INSULATION

\$ \_\_\_\_\_ per linear foot.

# DRAFT

Item No. 4 – GLOVEBAG FOR MUDDIED INSULATION ON PIPE FITTING  
REMOVAL AND DISPOSAL

\$ \_\_\_\_\_ per glovebag.

Item No. 5 – REMOVAL AND DISPOSAL OF TRANSITE PANEL

\$ \_\_\_\_\_ per square foot.

Item No. 6 – REMOVAL AND DISPOSAL OF SHEETROCK/JOINT COMPOUND

\$ \_\_\_\_\_ per square foot.

- D. The undersigned agrees that, if selected as Hazardous Materials Abatement Contractor, he/she will within ten work days after presentation thereof by the owner, execute a contract in accordance with the terms of this bid and furnish a Performance Bond and Payment Bond, each of a surety company qualified to do business under the laws of the State of Connecticut and satisfactory to the Owner and each in the sum of at least one hundred percent (100%) of the contract price. The premiums for these bonds are to be paid by the Contractor and shall be included in the contract price.
- E. The Bidder agrees not to withdraw the submitted bid for a period of sixty (60) consecutive calendar days after the actual date of the opening of Bids.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Company Address

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

DRAFT

CERTIFICATE OF CONTRACTOR'S INSURANCE COMPANY

City of Middletown  
245 DeKoven Drive  
Middletown, CT 06457

**Re: Hazardous Materials Abatement, Former Middletown Police Station, 62-66 Church Street, Middletown**

Gentlemen:

The undersigned is the agent of the Contractor's insurance company through which (Name of Contractor) has obtained insurance coverage to comply with its contract obligations to the City of Middletown. This is to certify that we have reviewed the sections of the Contract Specifications relating to the requirements for insurance, including all subsections, and we are of the opinion and represent to the City of Middletown that the insurance coverages listed on the Certificate(s) of Insurance which we have issued meet all of the contractual requirements of said section(s) of the Contract between the City of Middletown and (Name of Contractor), known as the above referenced project, dated August 2000.

DATED this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

Address: \_\_\_\_\_

(MUST BE SUBMITTED ON INSURANCE AGENT'S LETTERHEAD)

**DRAFT**

INDEMNITY AGREEMENT

City of Middletown  
245 DeKoven Drive  
Middletown, CT 06457

**Re: Hazardous Materials Abatement, Former Middletown Police Station, 62-66 Church Street, Middletown**

\_\_\_\_\_, the Contractor, agrees to indemnify the City of Middletown and its officers, agents, servants, and employees, from and against any and all claims, demands, suits, proceedings, liabilities, judgements, awards, losses, damages, costs and expenses, including attorney's fees, on account of bodily injury or damages to or destruction of any property, directly or indirectly arising out of, relating to or in connection with the issuance of a contract for the above reference work, whether or not due to the whole or in part the active, passive or concurrent negligence or fault of the Contractor, his officers, agents, servants or employees, any of his subcontractors and the Contractor shall and does hereby assume and agrees to pay for the defense of all such claims, demands, suits, and proceedings. The provisions of this Indemnity Agreement shall be in addition to any and shall in no way delete any provision of the underlying Contract for the above referenced work entered into between the undersigned Contractor and the Owner.

DATED this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

COMPANY: \_\_\_\_\_

Address: \_\_\_\_\_

Corporate Seal

SECTION 01010

GENERAL REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY OF WORK

- A. The work under the contract consists of the removal and disposal of asbestos containing materials, PCB containing ballasts, and mercury containing lamps as identified in Sections 02080 - Asbestos Abatement, 02085 - PCB-Containing Ballasts, and 02086 - Mercury Containing Lamps and on Figure 1.

Abatement of Hazardous Materials will be conducted prior to proposed demolition of the structure.

1.2 WORK INCLUDED

- A. The requirements of this Section govern specific aspects of the administration of the Work. The Contractor is responsible for compliance of his own forces and of any subcontractors with the requirements of this Section.
- B. The Contractor is responsible for all corrections of and changes in the Work, and for any delays resulting from his failure to conform with these requirements and for all costs arising therefrom.
- C. Individual requirements for work provided for under this Section are described in other Sections of the Specification.

1.3 DEFINITIONS

- A. Applicable provisions of the General Conditions and Supplementary Conditions of the Contract and General Requirements are given in this Section. For the purposes of these Specifications and the Contract:
  - 1. "Owner" shall refer to the City of Middletown or its designated representatives.
  - 2. "Contractor" as used in these Contract Documents refers to the Hazardous Material Abatement Contractor for the Work under this contract with the Owner. The Contractor shall be licensed to perform asbestos abatement work by the State of Connecticut.
  - 3. "Product" as used in these Contract Documents refers to materials, systems, and equipment provided by the Contractor.

4. "Project Manual" as used in these Contract Documents includes bidding documents, all Contract Documents, this Specification, and the related drawings.
5. Unless specifically indicated otherwise in the Contract Documents, use of the word "provide" or similar language shall carry with it the implied meaning that such items to be provided shall be installed by the Contractor unless specifically indicated otherwise in the Contract Documents.
6. The words "shall" or "will" means "must" as used in these Contract Documents.

#### 1.4 USE OF THE CONTRACT DOCUMENTS

- A. It shall be incumbent upon the Contractor to visit the Site and determine existing conditions, and what will be required to accomplish the Work intended by the Contract Documents. No increase in the Contract Sum will be permitted as a result of the Contractor's failure to visit the site and understand the existing conditions.
- B. Except for unforeseeable concealed conditions as determined by the Owner and Owner's representative, the Contractor shall make no claim for additional cost due to the existing conditions at the site.
- C. In the case of certain materials and work being added to the Scope of Work, the use of Unit Prices is intended to establish a cost basis. Unit prices for certain materials will be established on the bid form.

#### 1.5 CONTRACTOR QUALIFICATIONS

- A. All bidders shall submit a record of prior experience in asbestos abatement, listing no less than three (3) completed jobs in the past year, with all projects of similar size and scope. The Contractor shall list the experience and training of the project foremen and all on-site personnel. The information that should be included is as follows:
  1. Project Name and Address
  2. Owner's Name and Address
  3. Architect/Consultant
  4. Contract Amount
  5. Date of Completion
  6. Extras and Changes
- B. The Contractor selected must appear on the approved list of Asbestos Abatement contractors on file at the State of Connecticut Department of Public Health.
- C. Submit a written statement regarding whether the Contractor has ever been found out-of-compliance with federal or state asbestos regulations pertaining to worker protection, removal, transport, or disposal.



- D. Award of this Contract may not necessarily be based solely on the submitted lowest Base Bid amount. The Owner reserves the right to award this Contract to the Bidder who best meets all contractor qualifications.

#### 1.6 CONSTRUCTION PROGRESS SCHEDULE

- A. To assure adequate planning and execution of the Work, and to assist the Owner in appraising the reasonableness of the Contractor's applications for payment, the Contractor shall prepare and maintain a detailed Progress Schedule. This schedule shall be approved by the Owner prior to the commencement of any work on this project.
- B. Schedule of work of this Contract shall include the asbestos abatement notification requirements to the state Department of Public Health.
- C. The Contractor shall supervise and direct all work of his and other trades using his best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the work under the Contract.

#### 1.7 TESTING LABORATORY SERVICES

- A. The Contractor shall submit to the Owner the name, address and qualifications of proposed laboratories intended to be utilized for sample analysis as required by Section 02080.

#### 1.8 RUBBISH AND WASTE MATERIAL

- A. All rubbish and waste material from the Work shall be neatly stacked or kept in suitable containers and removed from the premises daily. The premises shall be kept clean and in an orderly condition at all times to the satisfaction of the Owner.
- B. Frequency of removal shall be made satisfactory to the Consultant and the Owner. At no time shall waste be removed from the site without the following documentation submitted for approval by the Consultant:
  - 1. Waste manifest for asbestos waste;
  - 2. Owner shall sign-off a copy of each manifest.
- C. Throughout the construction period, the Contractor shall maintain the building and site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such material from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste as required by the current federal, state, and local regulations and the requirements of the specifications.

## 1.9 DELIVERY AND STORAGE

- A. Materials shall be delivered to the job site in manufacturer's original unopened containers with manufacturer's brand name clearly marked thereon.
- B. Contractor shall handle and store materials carefully in accordance with manufacturer's recommendations and protect them from moisture and extremes of heat and cold.
- C. Copies of Purchase Orders, Shipping Manifests and Bills of Lading shall be available to the Owner upon request.

## 1.10 SAFETY AND SECURITY

- A. The Contractor has the responsibility to establish and maintain workplace safety in all areas at the property. Daily logs will be maintained by the Contractor which record daily activities and the names of all persons entering the site. These logs will be kept at the site and submitted to the Owner upon project completion.
- B. The building shall be locked and all entries barred upon completion of each work shift. During work, all access points to the building and/or abatement work areas shall be guarded against unauthorized entry. If windows or doors are removed during the work, the openings shall be sealed with plywood attached to a rigid framework of wood studs.
- C. All waste containers kept on site shall be locked at all times except during the loading of waste material. The Contractor's on-site competent person shall maintain control of container access. Applicable warning signs shall be posted on all sides of the waste container.

## 1.11 ADDITIONAL GENERAL REQUIREMENTS

- A. The Contractor shall employ a competent Asbestos Abatement Supervisor with at least three (3) years experience on projects of similar scope and magnitude who shall be responsible for all work involving asbestos abatement as described in the specifications and defined in applicable regulations, and have full time daily supervision of the same. The Supervisor shall be the competent person as defined by OSHA regulations.
- B. The Contractor shall allow the work of this contract to be inspected if required by local, state, federal, and any other authorities having jurisdiction over such work. The Contractor shall immediately notify the Owner and shall maintain written evidence of such inspection for review by the Owner.
- C. The Contractor shall incur the cost of all fines resulting from regulatory non-compliance as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance or negligence.

- D. The Contractor shall immediately notify the Owner of the delivery of all permits, licenses, certificates of inspection, of approval, or occupancy, etc., and any other such instruments required under codes by authorities having jurisdiction, regardless of to whom issued, and shall cause them to be displayed to the Owner for verification and recording.

## PART 2 – PRODUCTS

### 2.1 GENERAL

- A. Provide and maintain all services, materials, equipment, and labor required for the Work of this Section.
- B. Comply with all applicable requirements of the Specifications for materials and assemblies required for Work of this Section.
- C. Construction and materials required for the Work of this Section and not provided for in the Specifications shall be made acceptable to the Consultant.
- D. Remove from the site all materials and supplies provided in this Section when no longer required.

## PART 3 – EXECUTION

NOT USED

-END OF SECTION-

## SECTION 01016

## INSURANCE REQUIREMENTS

- A. Before commencing work, the Contractor shall carry insurance to cover any claims, damages, losses and expenses, direct or indirect, or consequential damages arising from asbestos abatement and PCB and Mercury vapor removal and disposal activities. Insurance certificate(s) shall be provided by the selected contractor prior to contract signing. The Contractor shall purchase and maintain insurance with a company licensed to do business in the State of Connecticut. Certificates must be made in the name of the Owner. The asbestos insurance shall remain in effect for one (1) additional year after completion, and such insurance shall be written on a true occurrence basis. The Asbestos Abatement Liability Occurrence Insurance shall have no exclusions, with a carrier rated a minimum of A- (Excellent) by the A. M. Best Company, or an equivalent rating by an acceptable organization as approved by the Owner. The selected contractor shall maintain at a minimum, the following insurance coverage throughout the duration of the project:
1. Workers' Compensation:
    - a. State: Statutory
    - b. Applicable Federal Statutory
    - c. Employers' Liability \$100,000 per accident  
\$500,000 Disease, Policy Limit  
\$100,000 Disease Each Employee
  2. Comprehensive or Commercial General Liability (including Premises-Operations; Independent Contractors' Protective; Products and Completed Operations; Broad Form Property Damage):
    - a. Bodily Injury/Property Damage Combined Single Limit:  
\$1,000,000 each occurrence  
\$2,000,000 Aggregate
  3. Contractual Liability:
    - a. Bodily Injury/Property Damage Combined Single Limit:  
\$1,000,000 each occurrence  
\$2,000,000 Aggregate
  4. Comprehensive Automobile Liability:  
\$1,000,000 each person/per occurrence

## SECTION 02080

## ASBESTOS ABATEMENT

## PART 1 GENERAL

## 1.1 SCOPE OF WORK

- A. This project includes the removal and disposal of the following asbestos containing materials by workers meeting state and federal training, medical, monitoring, and respirator fit testing requirements. Area locations are identified on Figure 1. All quantities are presented as approximate amounts. The Contractor shall verify all quantities prior to submitting bid (see section D below).

1. Mudded insulation on elbows, valves, fittings 550 EA

Remove from all pipe systems throughout the building. Demolition of cinderblock plumbing walls and removal of plaster, sheetrock, and drop ceilings will be necessary to access all of the insulation. All drop ceilings on the first floor shall be removed prior to the commencement of abatement activities.

2. Floor tile and mastic 15,000 SF

Remove from first and second floor of main building. Removal of mastic contaminated plywood will be required on the second floor. The Contractor will be responsible for all necessary demolition to access and remove floor tile and/or mastic which may be under temporary non-load supporting walls throughout the building. The Contractor shall demolish the sauna in the Men's Locker Room and raised wood floor in the Communications room to access all floor tile and mastic underneath. Carpeting installed over floor tile may be removed and disposed of as construction waste prior to the commencement of abatement activities if floor tile is not damaged during removal. All drop ceilings on the second floor shall be removed prior to the commencement of abatement activities.

3. Floor tile 920 SF

Remove from shipping/receiving area (above boiler room)

4. Air Cell Pipe Insulation 50 LF

Remove from rear garage. The Contractor shall demolish the adjacent bathroom plumbing wall and remove all thermal system insulation enclosed within (quantity not given).

5. Sheetrock/joint compound 20,000 SF  
Remove from walls and ceilings in main building. Sheetrock is applied to wood and metal framing. Sheetrock without joint compound may remain in place. All painted sheetrock panels shall be removed as asbestos containing waste. Wood paneling is applied to sheetrock walls in several offices and the first floor corridor. Dispose of all paneling in the office areas as asbestos containing waste. Paneling and associated studs in the corridors may be disposed as construction waste if removed prior to abatement activities. Multiple layers of sheetrock are present at each wood support column.
6. Wood panel mastic (associated with thin wood panels) 2,400 SF  
Remove from the following rooms: parking authority, communications/front desk, detective bureau, family services, classroom. Panel mastic is applied to paneling, wood studs and/or sheetrock. All materials contaminated with panel mastic shall be disposed of as asbestos containing waste.
7. Cove base mastic 5,000 LF  
Present in all areas containing floor tile and mastic. Applied to sheetrock scheduled for abatement (4200 LF) and brick/cinderblock walls (800 LF). All associated cove base shall be removed as asbestos containing waste.
8. Transite wall panels 230 SF  
Red painted panels in front foyer, front stairwell, and top stair landing.
9. Firedoor 1EA  
Remove from Chief's Office.
10. Roof tar/mastic applied to brick 160 SF
  - a) Brick wall at garage roof /shipping area roof junction. Under rubber membrane.
  - b) Brick wall at main roof/addition roof junction. Under rubber membrane and metal skirt.
11. Perimeter roof flashing (felts & tar) 350 SF  
Remove from rear addition roof. Under rubber membrane and metal stripping.
12. Flashing paper/tar on brick 550 SF  
Remove from brick parapet on main roof. Under rubber membrane.
13. Window frame caulking 62 window units
  - a) Remove window frame caulking from small window units on north, east, and west sides of main building (56 units).

- b) Remove window frame caulking from large window units at rear garage and adjacent support rooms (6 units). The Contractor shall demolish the brick in-fills to access frame caulking at the two windows in the garage storage room.
- B. Power or water service is not available at the site. The Contractor shall provide sufficient power and water to complete all abatement tasks.
- C. The Contractor is responsible for moving and/or disposing of all furniture, fixed cabinets, machinery, garbage and other discarded or abandoned items to facilitate abatement. Any item which may be asbestos contaminated shall be disposed of as asbestos waste during pre-cleaning operations.
- D. Prior to submitting bid, the Contractor shall examine the site and determine the difficulties in executing the scope of work and verify the quantities of asbestos containing materials at the site. Any discrepancies identified by the Contractor in the written Scope of Work must be reported to the Owner prior to submitting bid. The Contractor shall have no claim as to added work as a result of accepting the estimated quantities presented in this specification. By accepting said estimates, the Contractor shall abide by the unit quantity definitions (linear and square feet) presented in Section 1.2 (Definitions) of this specification.
- E. The Contractor shall retain a state licensed Project Monitor to conduct final air clearance testing upon completion of abatement activities.
- F. The roof of the building is severely damaged allowing water to seep into the structure and saturate a majority of the floor, wall, and ceiling surfaces. Molds and fungus are growing on a majority of the surfaces in the building. The Contractor shall instruct all employees to wear protective clothing and HEPA respirators prior to entering the structure. The Contractor must account for continual water penetration into the building throughout the duration of the project.

## 1.2 DEFINITIONS

- A. The following definitions relative to asbestos abatement apply:
1. ABATEMENT – Procedures to control fiber release from asbestos-containing materials; includes removal, encapsulation, and enclosure.
  2. AIR MONITORING – The process of measuring the fiber concentration of an area or of a person.
  3. AMENDED WATER – Water to which a surfactant has been added.
  4. ASBESTOS – The name given to a number of naturally occurring fibrous silicates. This includes the serpentine forms and the amphiboles and

- includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite, or any of these forms which have been chemically altered.
5. ASBESTOS WORK AREA – A regulated area as defined by OSHA 29 CFR 1926.1101 where asbestos abatement operations are performed which is isolated by physical boundaries to prevent the spread of asbestos dust, fibers, or debris. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.
  6. ASBESTOS FIBERS – Those particles with a length greater than five (5) microns and a length to diameter ratio of 3:1 or greater.
  7. CLEAN ROOM – An uncontaminated area or room which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.
  8. CLEARANCE SAMPLING – Final air sampling performed aggressively after completion of abatement project in a regulated area. Air samples collected by the air sampling professional having a fiber concentration of less than 0.01 fibers/cc of air will denote acceptable clearance sampling by Phase Contrast Microscopy.  
or  
Five air samples collected by the air sampling professional having an average asbestos concentration of less than 0.005 asbestos fibers/cc of air denote acceptable clearance sampling for Transmission Electron Microscopy.
  9. COMPETENT PERSON – As defined by 29 CFR 1926.1101, a representative of the Abatement Contractor who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure. This person must have authority to take prompt corrective measures to eliminate such hazards during asbestos removal. Competent person shall be properly trained in accordance with EPA's Model Accreditation Plan.
  10. CLASS 1 ASBESTOS WORK – means activities involving the removal of asbestos-containing materials (ACM) as thermal system insulation (TSI) and surfacing materials and presumed ACM (PACM).
  11. CLASS 2 ASBESTOS WORK – means activities involving the removal of ACM which is not thermal system insulation or surfacing material. This includes, but is not limited to, the removal of asbestos containing wallboard, floor tile and sheeting roofing and siding shingles, and construction mastics.
  12. CONSULTANT – An independent project monitoring firm retained by the Owner for purposes of construction administration and monitoring of the asbestos abatement work.
  13. CURTAINED DOORWAY – A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.



14. DECONTAMINATION ENCLOSURE SYSTEM – A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
15. ENCAPSULANT – A liquid material which can be applied to asbestos-containing materials which controls the possible release of asbestos fibers from the materials either by creating a membrane over the surface (bridging encapsulant) or penetrating the material and binding its components together (penetrating encapsulant).
16. EQUIPMENT ROOM – A room which is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.
17. FIXED OBJECT – A unit of equipment or furniture in the work areas which cannot be removed from the work area.
18. FRIABLE ASBESTOS MATERIALS – Any material that contains more than 1% asbestos by weight, that can be crumbled, pulverized, or reduced to powder by hand pressure.
19. HEPA FILTER – A high efficiency particulate air (HEPA) filter in compliance with ANSI Z9.2.1979.
20. HEPA VACUUM EQUIPMENT – Vacuum equipment with a HEPA filter system for filtering the effluent air from the unit.
21. LINEAR FEET – A unit of measurement based on the length of material present regardless of the number of layers or thickness.
22. MOVABLE OBJECT – A unit of equipment or furniture in the work area which can be removed from the work area.
23. NEGATIVE AIR PRESSURE EQUIPMENT – A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.
24. NESHAPS – National Emissions Standard for Hazardous Air Pollutants regulations enforced by the EPA.
25. PERSONAL EXPOSURE MONITORING – Air sampling within the breathing zone of an employee.
26. PERMISSABLE EXPOSURE LEVEL (PEL) – The maximum airborne concentration of asbestos fibers to which an employee is allowed to be exposed. The level established by OSHA (29 CFR 1926.1101) is 0.1 fibers per cubic centimeter of air as an eight (8) hour time weighted average and 1.0 fibers/cc averaged over a sampling period of 30 minutes as an excursion limit. The Contractor is responsible for maintaining work areas in a manner that this standard is not exceeded.
27. REGULATED AREA – An area established by the employer to demarcate where Class I, II, and III asbestos work is conducted and any adjoining area where debris and waste from such asbestos work accumulate, and a

work area within which airborne concentrations of asbestos exceed or there is a reasonable possibility that they may exceed the PEL.

28. SQUARE FEET – Unit of measurement based on the visible surface area of the material to be removed regardless of thickness or presence of multiple layers.
29. SHOWER ROOM – A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

### 1.3 SUBMITTALS

A. The Contractor shall submit the following prior to the pre-construction meeting:

1. Submit the Contractor's State of Connecticut Asbestos Abatement license.
2. Submit a schedule to the Owner which defines a timetable for executing and completing the project, including set-up, removal, cleanup, decontamination, and air clearance monitoring.
3. Submit the identity of the hauling contractor and location of the landfill to be used.
4. Submit plans and construction details for the construction of the decontamination enclosure systems and the isolation of the work areas as may be necessary for compliance with this specification and applicable regulations.
5. Submit training and medical records of each employee who may be on the project site.
6. Submit the qualifications of the project monitor that the asbestos abatement Contractor proposes to use for this project to perform employee exposure monitoring, final air clearance testing, and visual inspections.
7. Submit detailed product information on all materials and equipment proposed for asbestos abatement work on this project.
8. Submit pertinent information regarding the qualifications of the Project Supervisor (competent person) for this project as well as a list of past projects completed.
9. Submit evidence of local government permit for asbestos abatement or documentation stating no local permit is required.
10. Submit a copy of the state required asbestos notification form.
11. Submit documentation, when rental equipment is to be used, that the renter is aware of the intended use of the rented equipment.

B. The following shall be submitted to the Owner during the work:

1. Results of personal air sampling

2. Training and medical records for all employees used at the site (24 hours in advance)
- C. The following shall be submitted to the Owner at the completion of work:
  1. Copies of all OSHA and final air clearance sampling results
  2. Contractor site logs
  3. Completed copies of the waste shipment records
  4. Copies of project monitor site logs including visual inspection reports

#### 1.4 REGULATIONS AND STANDARDS

- A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which will be in conformance with all federal, state and local regulations and guidelines pertaining to asbestos abatement. Specifically, the Contractor shall comply with the requirements of the following:
  1. U.S. Environmental Protection Agency (USEPA) National Emissions Standards for Hazardous Air Pollutants (NESHAPS) Regulations (40 CFR 61, Subpart M);
  2. OSHA Asbestos Regulations (29 CFR 1910.1001 and 1926.1101);
  3. Connecticut Department of Environmental Protection (DEP) Regulations (Section 22a-209-8(i) and Section 22a-220 of the Connecticut General Statutes);
  4. Connecticut Department of Health Services (DOHS) Standards for Asbestos Abatement Sections 19a-332-1 to 19a-332-23;
  5. Connecticut Basic Building Code (BOCA) (including Connecticut Supplements);
  6. Life Safety Code (NFPA);
  7. Local health and safety codes, ordinances or regulations pertaining to asbestos remediation and all national codes and standards including ASTM, ANSI, and Underwriter's Laboratories.

#### 1.5 EXEMPTIONS

- A. Any deviations from the requirements of this specification requires the written approval and authorization from the Owner.

- B. Any modifications from the standard work practices identified in the Connecticut Department of Health Services (DOHS) Standards for Asbestos Abatement, Sections 19a-332-1 to 19a-332-23, must be requested in writing from the DOHS (DPH).

#### 1.6 FINAL VISUAL INSPECTION AND AIR CLEARANCE

- A. After completion of final cleaning, but prior to encapsulation, a pre-sealant inspection shall be conducted by the Contractor. The pre-sealant inspection shall verify that ACM and residual dust has been removed from the work area. This inspection must be documented in the Contractor's daily site log.
- B. Following the completion of the encapsulation phase of the work, a state licensed project monitor shall collect final air clearance samples inside each interior work area. The Contractor shall be responsible for retaining a project monitor to conduct the sampling.
- C. The contractor must provide written final air clearance results to the City of Middletown within 24 hours of completion of each air test.

#### 1.7 NOTIFICATIONS, POSTINGS, SUBMITTALS, AND PERMITS

- A. The Contractor shall make the following notifications, and provide the submittals to the following agencies prior to the commencement of removal work:
  - 1. Connecticut Department of Environmental Protection  
Health Services and Solid Waste Management Unit  
165 Capitol Avenue  
Hartford, CT 06106  
(Only if disposing of asbestos waste in Connecticut)
  - 2. Department of Public Health  
410 Capitol Avenue  
MS #51 AIR  
P.O. Box 340308  
Hartford, CT 06134
- B. The following information must be included in the notification to these agencies:
  - 1. Names and address of building owner/operator
  - 2. Building location
  - 3. Building size, construction date, and use
  - 4. Amount of friable and non-friable asbestos
  - 5. Work schedule, including proposal start and completion date

**1.8 WORK SITE SAFETY PLAN**

- A. The Contractor shall establish a set of emergency procedures and shall post them in a conspicuous place at the work site. The safety plan should include provisions for the following:
  - 1. Evacuation of injured workers
  - 2. Emergency and fire exit routes from all areas
  - 3. Emergency first aid treatment
  - 4. Local telephone numbers for emergency services including ambulance, fire, and police
  - 5. A method to notify occupants of the building in the event of a fire or other emergency requiring evacuation of the building
- B. The Contractor is responsible for training all workers in these procedures.

**1.9 CONTROL OVER REMOVAL WORK**

- A. All work procedures shall be continuously monitored by the Contractor to assure that areas outside the designated work locations will not be contaminated.
- B. The Contractor shall have a designated "competent person" on the job at all times to ensure establishment of a proper enclosure system and proper work practices throughout project.
- C. The Contractor shall visually inspect all containment barriers several times daily to assure barrier integrity. The Contractor shall repair any defects immediately. All inspections and any subsequent repairs must be documented in the Contractor's daily site log.
- D. If areas around the work area are suspected of being contaminated as a result of abatement work, the Contractor shall cease abatement activities. The Contractor must perform corrective actions to decontaminate these areas and eliminate the causes of such contamination. Unprotected individuals shall be prohibited from entering suspected contaminated areas until air sampling and visual inspection certify decontamination.
- E. The Contractor shall maintain control of and be responsible for access to all work areas to ensure the following requirements:
  - 1. Non-essential personnel are prohibited from entering the area;
  - 2. All authorized personnel entering the work area shall read the "Worker Protection Procedures" which are to be posted at the entry points to the

- enclosure system, and shall be equipped with properly fitted respirators and protective clothing;
3. All personnel who are exiting from the decontamination enclosure system shall be properly decontaminated;
  4. Asbestos waste removed from the work area must be properly bagged and labeled in accordance with these specifications. The surface of the bags shall be decontaminated. Asbestos leaving the enclosure system must be immediately transported off site or immediately placed in locked, posted temporary storage on site, and removed within 24 hours of the project conclusion.
  5. All surfaces on any material, equipment, or supplies shall be cleaned and decontaminated by wet cleaning and/or HEPA vacuuming prior to removal from the work area.

#### 1.10 CONTRACTOR'S RESPONSIBILITY

- A. All workers are to be accredited as Abatement Workers as required by the AHERA regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.
- B. The Contractor is required to be certified and accredited as required by the State of Connecticut Department of Public Health.
- C. The Contractor's competent person or a licensed asbestos abatement project monitor retained by the Contractor shall monitor airborne asbestos concentrations in the workers' breathing zone to establish conditions and work procedures for maintaining compliance with OSHA Regulations 29 CFR 1910.1001 and 1926.1101.
- D. All air sampling shall be conducted in accordance with methods described in OSHA Standards 29 CFR 1910.1001 and 1926.1101.

### PART 2 PRODUCTS

#### 2.1 MATERIALS

- A. Deliver all materials in original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Damaged or deteriorating materials shall not be used and shall be removed from the premises. Material that becomes contaminated with asbestos shall be decontaminated or disposed of as asbestos waste.
- C. Polyethylene sheeting, in a roll size to minimize the frequency of joints, shall be delivered to the job site with factory label indicating 4 or 6 mil.

- D. Polyethylene disposable bags shall be six (6) mil with pre-printed label. Tie wraps for bags shall be plastic, five (5) inches long (minimum), pointed and looped to secure filled plastic bags.
- E. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
- F. Surfactant (wetting agent), shall consist of fifty (50) percent polyoxyethylene ether and fifty (50) percent polyoxyethylene ester, or equivalent, and shall be mixed with water to provide a concentration of one (1) ounce surfactant to five gallons (5) gallons of water or as directed the manufacturer.
- G. Removal encapsulant shall be non-flammable factory prepared penetrating chemical encapsulant. Usage shall be in accordance with manufacturer's printed technical data.
- H. The Contractor shall have available spray equipment capable of mixing wetting agent with water and capable of generating sufficient pressure and volume and having sufficient hose length to reach all areas of the work area.
- I. Impermeable containers are to be used to receive and retain any asbestos-containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with OSHA Standard 20 CFR 1925.1101.) Containers must be both air and watertight.
- J. Labels and signs, as required by OSHA Standard 29 CFR 1926.1101, will be used.
- K. Encapsulant shall be bridging or penetrating type. Usage shall be in accordance with manufacturer's printed technical data.
- L. HEPA filtered local exhaust ventilation shall be utilized during preparation of the work area where asbestos-containing materials may be disturbed.

## 2.2 TOOLS AND EQUIPMENT

- A. Provide suitable tools for asbestos removal, encapsulation and enclosure.
- B. The Contractor shall have air monitoring equipment of type and quantity to monitor operations and conduct personnel exposure monitoring per OSHA requirements.

- C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape and air filters.
- D. The Contractor shall provide a mobile tank for water supply to be used for abatement and employee decontamination.
- E. The Contractor shall provide shower stalls and plumbing equipped with an acceptable drain and filter system. Filtered water shall be discharged only to sanitary sewers or drummed for disposal off site. Showers shall be equipped with hot and cold running water.
- F. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative pressure of 0.02 inches of water within enclosure with respect to outside area. Equipment shall be checked for proper operation by smoke tubes and a differential pressure gauge before the start of each shift and at least twice during the shift. Adequate exhaust air shall be provided for a minimum of four (4) air changes per hour within the enclosure. No air movement system or air filtering equipment shall discharge unfiltered air outside.
- G. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger.
- H. The Contractor must maintain reserve negative air filtration units in each work area. The units will be utilized if any operating negative air filtration units malfunction.
- I. The Contractor must provide sufficient electrical service to maintain operation of temporary lighting and the negative air filtration system on a continuous 24 hour basis throughout the abatement process.

## 2.3 COORDINATION AND PHASING

- A. The Asbestos Abatement Contractor shall conduct work according to a pre-approved phasing and abatement schedule.
- B. It is the responsibility of the Asbestos Abatement Contractor to ensure phasing and abatement schedule requirements are strictly adhered to.
- C. The Asbestos Abatement Contractor shall be on call to provide emergency abatement services at the site. The Contractor shall provide assistance immediately to reduce or prevent any potential health or environmental contamination as a result of the emergency situation.



**PART 3 EXECUTION****3.1 WORK AREA PREPARATION - GENERAL**

- A. Where necessary, shut down electrical power, including receptacles and light fixtures. Under no circumstances during decontamination procedures will lighting fixtures be permitted to operate when spraying of amended water may contact fixtures. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a licensed electrician.
- B. The Contractor shall pre-clean moveable objects within the proposed work area using HEPA vacuum equipment and/or wet cleaning methods as appropriate and remove such object from the work area.
- C. Seal off openings, including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetration of the work area, with polyethylene sheeting a minimum of six (6) mils thick, sealed with duct tape.
- D. Pre-clean fixed objects within the work area, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum six (6) mil plastic sheeting sealed with duct tape.
- E. Clean the work area using HEPA vacuum equipment or wet cleaning methods. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- G. Upon completion of pre-cleaning, cover floor surfaces with two layers of six (6) mil polyethylene sheeting sealed with duct tape unless flooring is scheduled for abatement. Polyethylene sheeting shall extend a minimum of 12" up the adjacent wall surface. Cover fixed walls not scheduled for abatement with two (2) layers of four (4) mil polyethylene sheeting to floor level, thus overlapping the wall polyethylene sheeting. Do not cover cove base scheduled for abatement.

Where fixed walls are not used, two layers of six (6) mil polyethylene sheeting shall be applied to a rigid framework of wood, metal, or PVC. All overlaps shall be sealed with tape or spray adhesive.

- H. Maintain emergency and fire exits from the work areas, or establish alternate exits satisfactory to fire officials. Emergency exits from the containment shall be clearly marked.
- I. Clean and remove ceiling mounted objects, such as lights and other items not sealed off, that interfere with asbestos abatement.

### 3.2 DECONTAMINATION SYSTEM

- A. The Contractor shall establish contiguous to the work area, a personnel decontamination enclosure consisting of equipment room, shower room, and clean room in series. The only access between contaminated and uncontaminated areas shall be through this decontamination enclosure.
- B. Access between rooms in the decontamination system shall be through double flap curtained openings. The clean room, shower and equipment room within the decontamination enclosure, shall be completely sealed ensuring that the sole source of air flow through this area originates from uncontaminated areas outside the work area.
- C. The Contractor shall establish contiguous with the work area an equipment decontamination enclosure consisting of two (2) totally enclosed chambers divided by a double flap curtained opening. This enclosure must be sealed from non-work areas during all abatement operations. The enclosure shall only be unsealed during equipment or waste container removal.
- D. Construct the decontamination system with wood or metal framing, 3/8" sheathing and cover both sides with a double layer of six (6) mil polyethylene sheeting, spray glued or taped at the joints. Caulk joints watertight at floor, walls, and ceiling.

### 3.3 ASBESTOS REMOVAL PROCEDURE – MUDDER FITTING AND PIPE INSULATION REMOVAL

- A. Prior to the removal of thermal system insulation the Contractor shall ensure work area preparation has been conducted in accordance with section 3.01 and 3.02 of this specification. Removal of fitting insulation shall occur prior to floor tile abatement.
- B. Spray asbestos materials with amended water using airless spray equipment or apply approved removal wetting agent to reduce the release of fibers during removal operations.
- C. In order to maintain indoor asbestos concentrations to the minimum, the wet asbestos must be removed in manageable sections. For all insulation above 6 feet, the contractor shall have one worker remove the wet insulation and directly place it into a waste bag held immediately adjacent to the removal activity by a second worker.
- D. Fill disposal containers/bags as removal proceeds, seal and clean containers/bags before removal to equipment decontamination system. Wet clean each container

thoroughly, double bag and apply caution label. Ensure that workers do not exit the work area through the equipment decontamination enclosure.

- E. After completion of stripping work, all surfaces from which asbestos has been removed shall be wet brushed, using a nylon brush, wet wiped, and sponged or cleaned by an equivalent method to remove all visible material (wire brushes are not permitted). During this work, the surfaces being cleaned shall be kept wet.
- F. Remove and containerize all visible accumulations of asbestos-containing and/or asbestos-contaminated debris. During cleanup, utilize brooms, rubber dust pan, and rubber squeegees to minimize damage to floor covering.
- G. Sealed disposal containers, and all equipment used in the work area, shall be thoroughly decontaminated and removed from work area through the equipment decontamination enclosure. All asbestos waste must be placed in 6-mil polyethylene disposal bags. The waste shall be enclosed in a second bag in the equipment decontamination enclosure before removal from the site.

#### 3.4 ASBESTOS REMOVAL PROCEDURE-FLOOR TILE AND ASSOCIATED MASTIC

- A. Prior to the removal of any floor tile and associated mastic, the Contractor shall ensure work area preparation has been conducted in accordance with section 3.01 and 3.02 of this specification.
- B. The Contractor shall wet the floor with amended water, removal encapsulant, or detergent solution so that entire surface is wet. Do not allow water to puddle or run off to other areas. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Allow time for humidity and water or removal encapsulant to loosen tiles prior to removal.
- C. The Contractor shall keep floor continuously wet throughout removal operation.
- D. Remove tiles using a manual or powered spade, or stripping machine. Continuously mist floor in area where machine is working with amended water, removal encapsulant or detergent solution. Wet any debris generated as necessary to keep continuously wet. Keep floor where tile has been removed continuously wet until after completion of heavy adhesive residue removal.
- E. Pick up whole tile, stack, place in boxed or wrap in felt, and place in labeled disposal bags. At the Contractor's option tiles may be placed directly into durable leak-tight containers.
- F. Following removal of floor tiles, there will be a layer of asbestos-containing adhesive remaining on the floor. The adhesive shall be removed utilizing shot blast or chemical methods.

- G. Asbestos contaminated plywood shall be disposed of as ACM.

### 3.5 ASBESTOS REMOVAL PROCEDURE – EXTERIOR NON-FRIABLE MATERIALS

- A. The following work practices shall be followed for the removal of all exterior non-friable materials except asphaltic roofing materials. Asphaltic roofing materials shall be removed in accordance with the NESHAP regulation.
- B. The work area shall be posted with asbestos warning signs and asbestos hazard barrier tape to demarcate the regulated area. Only properly trained and Connecticut certified workers are allowed in the regulated area.
- C. All workers in the regulated area shall wear Tyvek disposable protective clothing and, at a minimum, half face air purifying respirators with HEPA cartridges.
- D. The abatement Contractor shall establish an equipment area at the edge of the regulated area. The equipment area shall consist of an impermeable drop cloth of sufficient size to accommodate cleaning of equipment and removal of personal protective equipment without spreading contamination beyond the area.
- E. Work clothing must be HEPA vacuumed before it is removed. All equipment and other items including sealed disposal containers must be cleaned in the equipment area prior to removal from the regulated area. All abatement workers must enter or exit the regulated area through the equipment area.
- F. All work shall be supervised by a competent person as defined in OSHA 1926.1101.
- G. Materials shall be removed in an intact state to the extent feasible.
- H. Wet methods shall be used. The material shall be adequately wet during removal operations.
- I. Upon removal, asbestos containing materials shall be wrapped in plastic sheeting, labeled as asbestos containing, and lowered to the ground via dust tight chute, crane, or hoist no later than the end of the work shift.

### 3.6 SHEETROCK WALL, COVE BASE MASTIC, AND WALL PANEL MASTIC REMOVAL PROCEDURES

- A. Prior to the removal of any floor tile and associated mastic the Contractor shall ensure work area preparation has been conducted in accordance with section 3.01 and 3.02 of this specification.

- B. The Contractor shall manually remove sheetrock wall systems from the wood and metal panel support system. The Contractor shall continuously mist the area and keep all waste wet during removal operations.
- C. All cove base and cove base mastic adhered to sheetrock wall surfaces shall be disposed as ACM. All cove base and cove base mastic applied to cinderblock walls shall be removed under full containment conditions concurrently with floor tile, mudded fitting, and sheetrock abatement.
- D. Wood wall panels shall be removed from underlying sheetrock or wood studs under a continuous mist of water. All paneling, sheetrock and wood studs shall be disposed of as ACM. Wood studs and large sections of paneling shall be wrapped in 6 mil polyethylene sheeting prior to removal from the work area.

### 3.7 FINAL AIR CLEARANCE TESTING

- A. After completion of final visual inspection and encapsulation, and after all surfaces in the abatement area have dried, final air clearance sampling shall be performed by state licensed project monitor in accordance with applicable state and federal regulations.
- B. Areas which do not comply with state DPH regulations for post abatement air quality will be cleaned by the Contractor at the Contractor's expense.

### 3.8 DISPOSAL OF ASBESTOS

- A. All disposal of asbestos-containing and/or asbestos contaminated material must be in compliance with requirements of and authorized by the office of Solid Waste Management, Department of Environmental Protection (DEP), State of Connecticut.
- B. Disposal approvals shall be obtained before commencing asbestos removal.
- C. A copy of the approved disposal authorization shall be provided to the Owner and Consultant and any required federal, state, or local agencies.
- D. All waste shall be adequately wet before leaving the site.
- E. Warning signs must be attached to waste containers or transport vehicles. Warning signs shall be posted during loading and unloading of disposal containers.
- F. All asbestos waste shall be transported in covered, sealed vans, boxes, or dumpsters which are physically isolated from the driver by an airtight barrier. All vehicles must be properly licensed to meet DOT requirements. Cargo areas of

transport vehicles shall be lined with a layer of six mil polyethylene sheeting to prevent contamination from leaking containers.

- G. Any vehicles used to store or transport asbestos waste will either be removed from the property at night, or securely locked and posted to prevent disturbance.

END OF SECTION

SECTION 02085

REMOVAL AND DISPOSAL OF PCB-CONTAINING BALLASTS

PART 1 GENERAL

1.1 SCOPE OF WORK

- A. Work of this section includes all which is necessary for removal and disposal of all PCB-containing ballasts that are present within the light fixtures throughout the building. Approximately 440 ballasts of various sizes are present within the building.
- B. The Contractor shall provide all materials, labor, and equipment necessary to properly remove and dispose of all PCB containing ballasts within the building. The Contractor shall be responsible for all transportation and disposal costs.
- C. Work shall be preformed prior to the commencement of asbestos abatement activities.
- D. The Contractor is responsible for verification of actual quantities of ballasts requiring removal and disposal.

1.2 REGULATIONS AND STANDARDS

- A. The Contractor shall be solely responsible for conducting this project and supervising all work in a manner which conforms to all applicable state and federal regulations. Specifically, the Contractor shall comply with the requirements of the following:
  - 1. Toxic Substance Control Act (TSCA) (40 CFR Part 761).
  - 2. Comprehensive Environmental Response, Compensation, and Liability Act (Superfund Law).
  - 3. State of Connecticut General Hazardous Waste Statute 22A 454, 456 (require the incineration or proper landfill disposal of PCB ballasts).
  - 4. Department of Transportation (DOT) regulation HM-181.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

### 3.01 BALLAST REMOVAL AND PACKAGING

- A. The Contractor shall carefully remove ballasts from light fixtures. Methods shall not be used which damage ballasts. Personnel shall wear chemically resistant gloves, eye protection, and respirators.
- B. The Contractor shall package non-leaking ballasts in DOT approved 55 gallon drums. Avoid overpacking and damaging ballasts. Leaking ballasts shall be placed in leak tight plastic bags before placement into the drum. No other materials or waste shall be placed in the drums.
- C. The Contractor shall label all drums before removal from the site. Labels shall contain the following information:
  - 1. Contents of drum
  - 2. DOT description
  - 3. Name, address, telephone number of Generator
  - 4. Emergency telephone numbers
  - 5. Date of drum sealing
  - 6. Class 9 label
- D. The Contractor shall not load drum with more than 750 pounds of gross weight.
- E. The Contractor shall not use any absorbent material during ballast packing operations.
- F. Each drum shall be sealed and stored in a secure, dry area.

### 3.2 DISPOSAL

- A. At the completion of ballast removal and packaging, a transporter licensed to haul PCB waste shall transport the material to a PCB disposal facility. Chain of custody records shall be maintained which include the date of pickup, number of drums, name of PCB transporter, and name and address of the disposal facility.
- B. The Contractor shall provide a Certificate of Recycling and Disposal (CRD) pursuant to 40 CFR Part 761 Subpart K.

END OF SECTION



## SECTION 02086

## REMOVAL AND DISPOSAL OF MERCURY CONTAINING BALLASTS

## PART 1 GENERAL

## 1.1 SCOPE OF WORK

- A. Work of this section includes all which is necessary for removal and disposal of all mercury containing fluorescent lamps that are present throughout the building. Approximately 800 lamps are present within the building.
- B. The Contractor shall provide all materials, labor, and equipment necessary to properly remove and dispose of all mercury containing lamps within the building. The Contractor shall be responsible for all transportation and disposal costs.
- C. Work shall be performed prior to the commencement of asbestos abatement activities.
- D. The Contractor is responsible for verification of actual quantities of lamps requiring removal and disposal.
- E. The Contractor shall comply with all federal, state , and local regulations regarding the removal and disposal of mercury containing lamps.

## PART 2 – PRODUCTS

NOT USED

## PART 3 – EXECUTION

## 3.1 BALLAST REMOVAL AND PACKAGING

- A. The Contractor shall carefully remove mercury containing lamps from light fixtures. Methods shall not be used which damage lamps. Personnel shall wear chemically resistant gloves, eye protection, and respirators.
- B. The Contractor shall retain a Disposal Contractor to transport and properly recycle mercury containing lamps. The Disposal Contractor shall possess all federal, state, and local permits for handling mercury containing lamps.
- C. All lamps shall be placed into shipping containers supplied by the Disposal Contractor.

- D. Filled containers shall be kept in a secure, dry location at the site.
- E. The Contractor shall provide a completed waste manifest to the Owner within ten days after the Disposal Contractor removes the packaged lamps from the site.

END OF SECTION